

age of strongly ribbed shells has been found in Pliocene specimens and those of probably very early Pleistocene age, such as those sifted out so abundantly on the shores of Bear Lake, the percentage of such shells decreasing in a general way, in line with Call's observations on other forms, such as *Pompholyx* (*Parapholyx*) in the Lahontan region, in more recent deposits, although conspicuously ribbed individuals are found among the living representatives of Utah Lake. The specimens from former mountain lakes show the characteristic ribbing in the usual varying degrees. Furthermore, this is also the case with specimens reared from eggs in aquaria, even where the shells are extremely thin and translucent from lack of appropriate mineral matter in the water. Such facts indicate that the ribbing is not "pathological" and due to the direct action of the environment, but that it is a truly genetic character, valid in specific definition. Upon this matter it is my expectation to present definite experimental evidence at another time.

DISTRIBUTION OF GASTROPODS IN THE MUDDY RIVER— SEPTEMBER, 1932

BY CHARLES H. BLAKE

Massachusetts Institute of Technology, Cambridge, Mass.

Casual captures of gastropods in the Muddy River (Boston, Mass.) over several years have indicated that some marked changes have occurred in the past year or two, so I have explored the whole length of it (about $3\frac{3}{4}$ miles) for a few conspicuous forms, of which I wish to put the distribution on record. In the following list the distances given are in miles from the mouth of the Muddy River, measured in midstream.

Viciparus contectoides. Six taken at .55 mi. (immediately north of Agassiz Road). Mr. W. J. Clench tells me this is a new introduction in the Muddy River.

Viviparus malleatus. From 1.4 to 3.0 mi., most abundant about 2 mi. up.

Lymnaea palustris. From 3.2 to 3.55 mi., formerly present at .55 mi.

Lymnaea auricularia. At 3.1 mi. (Leverett Pond), formerly at .8 mi. This is also wanting near the Boylston St. Bridge on the Charles River where it was first reported in this region.

Planorbis trivolvis. From .1 to 3.0 mi.

Physa heterostropha. From .1 to 3.55 mi.

Park attendants tell me that the Chinese take *V. malleatus* from the river by the sackful during the summer. Jamaica Pond at the head of the Muddy River is well populated with an introduced crayfish (*Cambarus immunis* var. *spinirostris*) and seems to have no gastropods near shore.

Due, undoubtedly, to the work on the new fills in the Charles River Basin, the Basin and the lower .4 miles of the Muddy River are very salt and support a brackish water fauna of crustaceans (*Cyathura carinata*, *Palaemonetes vulgaris*, and *Rhithropanopeus harrisi*). The chloride (as NaCl) at the mouth of the Muddy River is .311 to .321% ; at .4 mi., .306% ; at .9 mi., .216%.

Finally, I wish to thank Mr. Clench for assistance with the mollusks and Mr. C. M. Wareham (Chem. Dept., Massachusetts Institute of Technology) for help with the chloride determinations.

A SOUTH AFRICAN CONULINUS

BY HENRY A. PILSBRY

CONULINUS COCKERELLI, new species. Plate 6, fig. 7,

The Bluff, Durban, Natal. Type 158573 A. N. S. P., collected by Prof. T. D. A. Cockerell, 1931.

The shell is umbilicate, turbate, thin, covered with a pale yellow periostracum (in the type, a "dead" shell, remaining only in shreds on the last whorl). Outlines of the spire slightly concave near the summit. Whorls moderately convex, with rather deeply impressed suture, the last whorl with evenly rounded periphery. Surface glossy, weakly